

### **REMARKS**

Claims 1 – 61 are in the instant application. Claims 1, 2, 3, 5, 6, 16, 17, 18, 21, 23, 26, 33, 34, 35, 36, 38, 40, 41, 42, 43, 44, 48, 49, 51, 57, 58, 59, 60 and 61 are amended by this amendment to more positively recite applicants' patentably novel invention. Claims 4, 7, 12, 13, 15, 19, 20, 22, 24, 25, 28, 29, 31, 46, 47 and 50 are cancelled without prejudice to eliminate issues. Claim 45 is allowed.

Support for the amendments to the claims is found, among other places, in the claims on file which have been previously considered. Applicants respectfully submit that no new subject matter has been added to the amended claims and no additional search is required. Based on the foregoing, applicants respectfully request admittance of the amendment to claims 1, 2, 3, 5, 6, 16, 17, 18, 21, 23, 26, 33, 34, 35, 36, 38, 40, 41, 42, 43, 44, 48, 49, 51, 57, 58, 59, 60 and 61 and consideration thereof.

Claims 1 - 3, 6, 8 – 11, 14, 16, 18, 21, 23, 26, 27, 30, 32, 35 - 38, 41, 49 – 53 and 58 – 60 are rejected under 35 U.S.C. 112, first paragraph. The Office Action states that the specification is enabling for a breaker layer comprising a metal oxide doped with phosphorous and/or silicon and alleges that the specification does not reasonably provide enablement for any conceivable "breaker layer" either presently existing or which might be discovered in the future.

Applicants respectfully traverse the rejection of claims 1 - 3, 6, 8 – 11, 14, 16, 18, 21, 23, 26, 27, 30, 32, 35 - 38, 41, 49 – 53 and 58 - 60 under 35 U.S.C. 112, first paragraph, however, to eliminate issues independent claims 1, 6, 17, 18, 26, 41, 49, 58, 59 and 60 have been amended to recite, among other things, in one form or another that the breaker layer includes a metal oxide having phosphorous or silicon.

Applicants respectfully submit that claims 1 - 3, 6, 8 – 11, 14, 16, 18, 21, 23, 26, 27, 30, 32, 35 – 38, 41, 49 – 53 and 58 – 60 meet the requirements of 35 U.S.C. 112, first paragraph, and respectfully request withdrawal of the rejection of claims 1 - 3, 6, 8 – 11, 14, 16, 18, 21, 23, 26 – 28, 30, 32, 35 - 38, 41, 49 – 53 and 58 – 60 under 35 U.S.C. 112, first paragraph.

Claims 1 - 3, 5, 6, 8 - 11, 14, 18, 21, 23, 26, 27, 30, 32 - 41, 49, 51 - 53, 59 and 60 are rejected under 35 U.S.C. 112, first paragraph. The Office Action states that the specification is enabling for a first and second coating surface (or layer) comprising a metal oxide and alleges that the specification does not reasonably provide enablement for any conceivable first or second surface (or layer) either presently existing or which might be discovered in the future.

Applicants respectfully traverse the rejection of claims 1 - 3, 5, 6, 8 - 11, 14, 18, 21, 23, 26, 27, 30, 32 - 41, 49, 51 - 53, 59 and 60 under 35 U.S.C. 112, first paragraph; however, to eliminate this issued claims 1, 6, 18, 26, 41, 49, 59 and 60 have been amend to, among other things, recite in one form or another that the patentably novel coating and/or coated article includes a first and second coating surface (or layer) including a metal oxide.

Applicants respectfully submit that claims 1 - 3, 5, 6, 8 - 11, 14, 18, 21, 23, 26, 27, 30, 32 - 41, 49, 51 - 53, 59 and 60 meet the requirements of 35 U.S.C. 112, first paragraph, and respectfully request withdrawal of the rejection of claims 1 - 3, 5, 6, 8 - 11, 14, 18, 21, 23, 26, 27, 30, 32 - 41, 49, 51 - 53, 59 and 60 under 35 U.S.C. 112, first paragraph.

Claims 42 - 44, 49, 51 - 53, 57 and 61 are rejected under 35 U.S.C. 112, first paragraph. The Office Action states that the specification is enabling for a color suppression layer comprising a gradient layer which transitions from one metal oxide or nitride to another and alleges that it does not reasonably provide enablement for any conceivable color suppression layer either presently existing or which might be discovered in the future.

Applicants respectfully traverse the rejection of claims 42 - 44, 49, 51 - 53, 57 and 61 under 35 U.S.C. 112, first paragraph; however to reduce the issues claims 42, 49, 57 and 61 have been amended to recite, among other things, in one form or another, that the color suppression layer includes a gradient layer which transitions form one metal oxide or nitride to another.

Applicants respectfully submit that claims 42 - 44, 49, 51 - 53, 57 and 61 meet the requirements of 35 U.S.C. 112, first paragraph, and respectfully request withdrawal of the rejection of claims 49 - 53, 57 and 61 under 35 U.S.C. 112, first paragraph.

Claim 17 is rejected under 35 U.S.C. 112, first paragraph. The Office Action alleges that a substrate appears to be essential to practice the invention. Applicants respectfully traverse the rejection of claim 17 under 35 U.S.C. 112, first paragraph; however to eliminate this issue, claim 17 has been amended to recite, among other things, that the coating is over a portion of a substrate.

Applicants respectfully submit that claim 17 meets the requirements of 35 U.S.C. 112, first paragraph, and respectfully request withdrawal of the rejection of claim 17 under 35 U.S.C. 112, first paragraph.

Claims 1 - 3, 6, 8 - 11, 14, 16, 18, 21, 23, 26, 27, 30, 32, 35 - 38, 41, 49 - 53 and 58 - 60 are rejected under 35 U.S.C. 112, second paragraph. The Office Action states that the claims set forth a physical characteristic desired in the breaker layer and alleges that the claims fail to set forth a specific compositions(s) for the breaker layer.

Applicants respectfully traverse the rejection of claims 1 - 3, 6, 8 - 11, 14, 16, 18, 21, 23, 26, 27, 30, 32, 35 - 38, 41, 49 - 53 and 58 - 60 under 35 U.S.C. 112, second paragraph, however, to eliminate issues, independent claims 1, 6, 17, 18, 26, 41, 49, 58, 59 and 60 have been amended to recite, among other things, in one form or another that the breaker layer includes a metal oxide doped with at least phosphorous or silicon.

Applicants respectfully submit that claims 1 - 3, 6, 8 - 11, 14, 16, 18, 21, 23, 26, 27, 30, 32, 35 - 38, 41, 49 - 53 and 58 - 60 meet the requirement of 35 U.S.C. 112, second paragraph, and respectfully request withdrawal of the rejection of claims 1 - 3, 6, 8 - 11, 14, 16, 18, 21, 23, 26, 27, 30, 32, 35 - 38, 41, 49 - 53 and 58 - 60 under 35 U.S.C. 112, second paragraph.

Claims 1 - 3, 5, 6, 8 - 11, 14, 18, 21, 23, 26, 27, 30, 32 - 41, 49, 51 - 53, 59 and 60 are rejected under 35 U.S.C. 112, second paragraph. The Office Action states that the claims set forth a physical characteristic (crystalline desired) in the first and/or second coating surface (or layer) and alleges that the claims fail to set forth a specific composition(s) for the first and/or second coating surface (or layer).

Applicants respectfully traverse the rejection of claims 1 – 3, 5, 6, 8 – 11, 14, 18, 21, 23, 26, 27, 30, 32 – 41, 49, 51 – 53, 59 and 60 under 35 U.S.C. 112, second paragraph; however, to eliminate this issue, claims 1, 6, 18, 26, 41, 49, 59 and 60 have been amended to, among other things, recite in one form or another that the patentably novel coating and/or coated article includes a first and second coating surface (or layer) including a metal oxide.

Applicants respectfully submit that claims 1 – 3, 5, 6, 8 – 11, 14, 18, 21, 23, 26, 27, 30, 32 – 41, 49, 51 – 53, 59 and 60 meet the requirements of 35 U.S.C. 112, second paragraph, and respectfully request withdrawal of the rejection of claims 1 – 3, 5, 6, 8 – 11, 14, 18, 21, 23, 26, 27, 30, 32 – 41, 49, 51 – 53, 59 and 60 under 35 U.S.C. 112, second paragraph.

Claims 42 – 44, 49, 51 – 53, 57 and 61 are rejected under 35 U.S.C. 112, second paragraph. The Office Action states that the claims set forth physical characteristic desired in the color suppression layer (suppresses color) and alleges that the claims fail to set forth a specific composition(s) for the color suppression layer (the Office Action refers to "breaker layer"; applicants consider this an oversight and are proceeding with the understanding that the correct term is "color suppression layer").

Applicants respectfully traverse the rejection of claims 42 – 44, 49, 51 – 53, 57 and 61 under 35 U.S.C. 112, second paragraph; however, to reduce the issues, claims 49, 57 and 61 have been amended to recite, among other things, in one form or another, that the color suppression layer includes a gradient layer which transitions from one metal oxide or nitride to another.

Applicants respectfully submit that claims 42 – 44, 49, 51 – 53, 57 and 61 meet the requirements of 35 U.S.C. 112, second paragraph, and respectfully request withdrawal of the rejection of claims 42 – 44, 49, 51 – 53, 57 and 61 under 35 U.S.C. 112, second paragraph.

Claims 44 and 61 are rejected under 35 U.S.C. 112, second paragraph. The Office Action alleges that it is unclear how the second layer can be "proportional" or "substantially proportional" to the thickness of the first layer.

Applicants respectfully traverse the rejection of claims 44 and 61 under 35 U.S.C. 112, second paragraph; however, to eliminate this issue, claims 44 and 61 have been amended to recite, among other things, in one

form or another, that for thickness increases of the first layer within its thickness range, the thickness of the second layer decreases within its thickness range. Support for the amendment to claims 44 and 61 is found, among other places, in originally filed claims 44 and 61 and on page 22, lines 4 – 31, of the specification.

Based on the foregoing, applicants respectfully request admittance and consideration of claims 44 and 61. Further, applicants respectfully submit that claims 44 and 61 meet the requirements of 35 U.S.C. 112, second paragraph, and respectfully request withdrawal of the rejection of claims 44 and 61 under 35 U.S.C. 112, second paragraph.

Based on the foregoing, applicants respectfully request allowance of claims 1, 6, 8 – 12, 14, 16 – 18, 21, 23, 26 – 28, 30, 32 – 35, 37 – 41, 49 – 53 and 58 – 61.

Claims 48 and 54 – 56 are rejected under 35 U.S.C 102(e) as being anticipated by USPN 6,218,018 to McKown et al. (hereinafter also referred to as McKown). Applicants respectfully traverse the rejection of claims 48 and 54 – 56 under 35 U.S.C 102(e) as being anticipated by McKown and requests reconsideration thereof.

Regarding claim 48, the Office Action alleges that McKown discloses numerous variations of depositing on a glass substrate a layer of tin oxide doped with fluorine and a layer of tin oxide doped with antimony. Applicants respectfully submit that there is no discussion in McKown of a coated article having a coating of fluorine doped tin oxide over a coating of antimony doped tin oxide where the index of refraction of the antimony doped tin oxide is lower than the index of refraction of the fluorine doped tin oxide.

The Examiner in the sentence bridging pages 10 and 11 of the Office Action assesses that an antimony doped tin oxide layer has a lower refractive index than a fluorine doped tin oxide layer and directs attention to applicants' specification to page 33, lines 7 – 9. Page 33 of applicants' specification is a discussion regarding Predictive Example IV. Applicants respectfully submit that applicants' own example presented in their application cannot be used as a basis to reject claim 48 under 35 U.S.C. 102 (e). Applicants show on pages 29 – 32 the change in refractive index for different wavelengths. Although it can be argued that McKown discusses numerous

variations of depositing a layer of tin oxide doped with fluorine and a layer of tin oxide doped with antimony, without a teaching that the index of refractions are different and that the antimony doped tin oxide has a lower index of refraction than the fluorine doped tin oxide, McKown cannot anticipate claim 48.

Regarding claims 54 – 56, the Office Action alleges that McKown discloses that the coated article may comprise a substrate with a gradient layer deposited thereon comprising tin oxide doped with fluorine and antimony (column 7, lines 21 – 56 and Figure 3).

Claim 54 on which claims 55 and 56 are dependent recites, among other things, a first coating region having a first dopant, a third coating region having a second dopant and a region between the first and third region having a metal oxide, the first dopant and the second dopant with the ratio of the first dopant to the second dopant constantly changing with the distance from the substrate. The film in Fig. 3 of McKown has a dopant gradient with the NIR dopant having a higher concentration than the other dopant at one surface of the film and the low emissivity dopant having a higher concentration than the other dopants at the other surface of the film. Unlike applicants' claim 54 which has two regions (the first coating region and the third coating region) where there is only one of the dopants of the second region (transition region), Fig. 3 of McKown has two dopants throughout the coating with the concentrations of the dopants changing to provide a gradient (column 7, lines 22 – 27, of McKown). In other words, McKown has only one region.

McKown fails to teach the three regions recited in applicants' claim 54 and therefore McKown cannot anticipate the subject matter recited in applicants' claims 54 – 56.

Based on the foregoing, applicants respectfully request withdrawal of the rejection of claims 48 and 54 – 56 under 35 U.S.C. 102(e) as being anticipated by McKown and request allowance of claims 48 and 54 – 56.

Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over McKown. Applicants respectfully traverse the rejection of claim 57 under 35 U.S.C. 103(a) as being unpatentable over McKown and

request reconsideration thereof. Claim 57 is dependent on claim 54 discussed above and is amended to recite that the color suppression between the first region and the substrate comprises a gradient layer which transitions from one metal oxide or nitride to another.

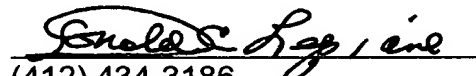
Applicants have shown above that McKown does not anticipate applicants' invention. More particularly, McKown shows only one region whereas applicants show a three region coating having a dopant in the first region, a different dopant in the third region and both dopants in the transition region between the first and third regions. There is no discussion in McKown of providing a gradient color suppression layer between the first region and the substrate.

Based on the foregoing, applicants respectfully request admittance and consideration of claim 57, and allowance of claims 48 and 54 - 57.

This amendment represents a sincere effort to place the application in condition for allowance. In the event issues remain, the Examiner is invited to call the undersigned to discuss those issues before further action is taken on the case.

Respectfully submitted,

DONALD C. LEPIANE  
Registration No. 25,996  
Attorney of Record

  
(412) 434-3186

Pittsburgh, Pennsylvania  
July 3, 2003